

Center for Environmental & Applied Fluid Mechanics

Weekly Seminar: Spring 2011

Date: **Friday, April 29, 2011**
Time: **11:00 AM**
Location: **Gilman Hall 50 (Marjorie M. Fisher Hall)**
Speaker: **Massimiliano Fatica (NVIDIA)**
Title: ***"High Performance Computing with CUDA"***

Abstract

NVIDIA® CUDA™ is a general purpose scalable parallel programming model for writing highly parallel applications. It provides several key abstractions – a hierarchy of thread blocks, shared memory, and barrier synchronization. This model has proven quite successful at programming multi-threaded many-core GPUs and scales transparently to hundreds of cores. Scientists throughout the industry and academia are already using CUDA to achieve dramatic speedups on production and research codes. This talk will give an overview of CUDA Fortran and of the available libraries and tools using simple examples.

Bio

Massimiliano Fatica is a Manager at NVIDIA where he works in the area of high-performance computing using GPUs. Prior to joining NVIDIA, he was a research staff member at Stanford University where he worked at the Center for Turbulence Research and Center for Integrated Turbulent Simulations on applications for the Stanford Streaming Supercomputer. He holds a laurea in Aeronautical Engineering and a PhD in Theoretical and Applied Mechanics from the University of Rome "La Sapienza".